










Work Order ID 62713




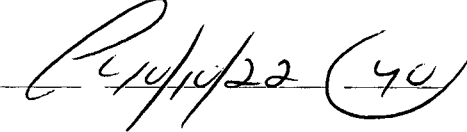
Wednesday, October 06, 2010 3:40:02 PM

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Item ID:	D6101-007	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Saddle Billet					
Start Date:	10/6/2010	Start Qty:	40.00		Cust Item ID:	
Required Date:	10/15/2010	Req'd Qty:	40.00		Customer:	
Reference:						

Approvals:	Process Plan:		Date:		Tooling:		Date:		Run	Start	
	QC:		Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6101	Rev B								

100		0.00							
	PURCHASING								 10/10/08 (90)
Purchasing									
Purchasing	Memo Issue P/O: 12715 a) Description: Alluminum billet b) 7.750" x 8.250" x 2.50" thick c) Tolerance on all dimenstions are +0.030"/-0.000" d) Grain direction along 7.750" length e) Material: 7075-T7351 (QQ-A-250/12) f) Material certification required	0.00							
110		0.00							
	Receive & Inspect for Damage & Mat'l Certs								 10/10/22 (90)
Packaging									
Packaging	Memo Ensure material certification is attached	0.00							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 62713

Wednesday, October 06, 2010 3:40:02 PM

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Item ID: D6101-007

Accept

Setup Start

Revision ID:

Stop

Item Name: Saddle Billet

Start Date: 10/6/2010 Start Qty: 40.00

Cust Item ID:

Required Date: 10/15/2010 Req'd Qty: 40.00

Customer:




Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC6- Inspect dimensions to drawing Memo Ensure Material certification comply to Dwg D6101	0.00							
			JL 10/10/25			(40)			
130  Packaging Packaging	Identify as per dwg & Stock Location: MAT42 Memo	0.00							
			JL 10/10/25						
140  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00							
						10/10/26			
						ME 10-10-25			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, October 06, 2010 3:40:06 PM

Page 1

Work Order ID: 62713



Parent Item: D6101-007



Parent Item Name: Saddle Billet


Start Date: 10/6/2010

Required Date: 10/15/2010

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A: ☐01.05.04 ☐New Issue ☐EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007P  7075-T7351 8.25X7.75X2.5		Purchased	No			110	Each	0.0000	1	40			



PU 10/14/22 (20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

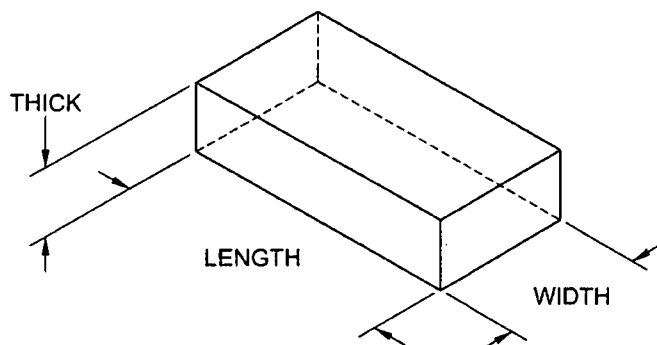
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SPECIFICATION CONTROL DRAWING



UNCC

NO. 62713
2/10-10-06

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

B

RELEASED
09/07/15/W

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO12715**

Purchase Order Date 10/08/10

PO Print Date 10/08/10

Page Number 1 of 1

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100
TORONTO, ON M4Y 3A5
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 694 9575

514 695 3281

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
C2/10/08

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D6101-007P	7075-T7351 8.25X7.75X2.5	10/26/10 Yes	40.00 Each		\$79.2800	\$3,171.20

Special Inst:

AS PER DWG D6101 REV. B
B62713
ALUMINUM BILLET
SIZE: 7.750" X 8.250" X 2.50" THICK
TOLERANCE ON ALL DIMENSION ARE
+0.030"/-0.000"
GRAIN DIRECTION ALONG 7.750"
LENGTH
MATERIAL: 7075-T7351 (QQ-A-250/12)
OR
QQ-A-250/12 OR ASTM B209

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

PO Total:

\$3,171.20

Change Nbr:

1

Change Date:

10/08/10

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:538708

Expédié de / Ship From:		Vendu à / Sold To:		Expédié à / Ship To:		Livré à / Deliver To:			
Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2		WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA			
Date d'expédition / Date Shipped		F.O.B.		Modalités de transport / Freight Terms		Transporteur / Carrier		N° du Bon de connaissance / BOL No	
21-OCT-10		ORIGIN		Prepaid		MANITOULIN		538708-2	

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch - MON
--	--

N° de commande / Order No	N° de ligne Line No	N° d'article / Item No	Description	
1044403	1	6879.MO	2.5000.PL.7075.T7351.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 8.25 IN (+ .0620/- .0000 IN (GRAIN TO RUN ALONG 7.75")) X 7.75 IN (+ .0620/- .0000 IN (GRAIN TO RUN ALONG 7.75")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12	
N° de bon de commande / Purchase Order No	Nbre de pièces / Part Number		Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
12715	YOUR ITEM NUMBER: D6101-007		40 PCS	40 PCS

Détails / Details							
N° de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièces / PCS	Largeur (Pouce) / Width (IN)	Longueur (Pouce) / Length (IN)	Qté expédiée / Shipped Qty (LBS)
50531306		485579A7		40			661.27

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.
These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned

SHIP TO: CASTLE % CASTLE AEROSPACE 3050 SOUTH HYDRAULIC WICHITA, KS 67216					
SOLD TO: CAS AERO%AM CASTLE METALS ATTN: BOB OHR %ACCTS PAYABLES 3400 NORTH WOLF ROAD FRANKLIN PARK, IL 60131					
CUSTOMER PO NUMBER: 15132		WORK PACKAGE:		CUSTOMER PART NUMBER: 6879 AMC A97075-60	
KAISER ORDER NO: 1087324		LINE ITEM: 1		SHIP DATE: 28-SEP-2009	
WEIGHT SHIPPED: 41304 LB		QUANTITY: 23 PCS EST.		B/L NUMBER: 2024219	
ALLOY: 7075		CLAD: BARE		TEMPER: T7351	
GAUGE: 2.5000 IN		DIAMETER/WIDTH: 48.500 IN		LENGTH: 144.500 IN	

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
 4172660

CUSTOMER PO NUMBER: 15132		WORK PACKAGE:		CUSTOMER PART NUMBER: 6879 AMC A97075-60		SHIP RUN/LOAD ID: 101636/8		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1087324		LINE ITEM: 1		SHIP DATE: 28-SEP-2009		ALLOY: 7075		CLAD: BARE	
WEIGHT SHIPPED: 41304 LB		QUANTITY: 23 PCS EST.		B/L NUMBER: 2024219		GAUGE: 2.5000 IN		DIAMETER/WIDTH: 48.500 IN	
TEMPER: T7351		PRODUCT DESCRIPTION: Sawed Plate		LENGTH: 144.500 IN		DIAMETER/WIDTH: 48.500 IN		GAUGE: 2.5000 IN	

Certified Specifications

AMS 4078/RevG
 ASTM B 209/Rev07
 BSS 7055/RevA
 DPS 4.713/RevAH
 GSS16100/RevG/Amd1

AMS-QQ-A-250/12
 ASTM B 594/Rev06
 CMMP 025/RevS
 EAC MS1011/RevE
 MMS 159/RevN

AMS-STD-2154
 BAC 5439/RevH
 CSTI 006/RevC
 GAMPS 9101/RevB
 PS 21211/RevK

Test Code: 4297

Test Results

Lot: 479608A2 Cast 268 Drop 23 Ingot 1

(ASTM E8/B557)
 (EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.5 : 71.8 (493 : 495)	59.8 : 60.1 (412 : 414)	11.3 : 11.6

(ASTM E1004)
 (EN 2004-1)
 Conductivity %IACS : 40.9 Min 41.5 Max
 (MS/M) : 23.7 Min 24.1 Max

(ASTM E1251)
 Chemistry: SI FE CU MN MG CR ZN TI V ZR OTHER
 Actual 0.10 0.20 1.5 0.03 2.5 0.19 5.7 0.04 0.01 0.02 TOT 0.05

TEST REPORTS AND
 DATA CONFIRMED



KAISER

ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4172860

Lot: 485572A2 Cast 271 Drop 26 Ingot 1

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.8 : 72.4 (488 : 499)	58.4 : 60.2 (403 : 415)	10.9 : 11.2

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.6 Min	40.9 Max
(MS/M) :	23.5 Min	23.7 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.22	1.5	0.04	2.5	0.20	5.7	0.03	0.01	0.02	TOT 0.05

Lot: 485579A7 Cast 271 Drop 27 Ingot 1

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.0 : 72.3 (490 : 499)	58.9 : 60.1 (406 : 414)	10.7 : 11.1

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	39.7 Min	40.6 Max
(MS/M) :	23.0 Min	23.5 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.20	1.5	0.08	2.6	0.19	5.6	0.02	0.01	0.01	TOT 0.06

**KAISER
ALUMINUM**Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586**CERTIFIED TEST REPORT**Serial Number
4172660

Lot: 485715A7 Cast 271 Drop 21 Ingot 4

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.4 : 72.4 (492 : 499)	59.2 : 60.9 (408 : 420)	11.2 : 11.4

(ASTM E1004) (EN 2004-1)	
Conductivity %IACS :	40.9 Min 41.2 Max
(MS/M) :	23.7 Min 23.9 Max

(ASTM E1251)	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	
Chemistry:											TOT	0.05
Actual	0.11	0.21	1.5	0.04	2.5	0.19	5.5	0.04	0.01	0.01		

Lot: 485730A6 Cast 271 Drop 29 Ingot 3

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.6 : 74.0 (494 : 510)	59.9 : 63.3 (413 : 436)	11.3 : 11.3

(ASTM E1004) (EN 2004-1)	
Conductivity %IACS :	39.3 Min 42.1 Max
(MS/M) :	22.8 Min 24.4 Max

(ASTM E1251)	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	
Chemistry:											TOT	0.05
Actual	0.09	0.18	1.4	0.04	2.4	0.20	5.7	0.03	0.01	0.01		

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

**KAISER
ALUMINUM**

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4172660

TEST NOTES

7075-T7351 plate 3.501-4.000" thick, if
ultrasonically inspected, meets requirements of CMMPO25 per
SDR CMMPO25-KaiserT-3. 7075-T7351 plate 4.001-5.000" thick,
if ultrasonically inspected, meets requirements of CMMPO25
per
SDR CMMPO25-KaiserT-2.

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(a), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 252.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED.

BILL POYNOR, LABORATORIES SUPERVISOR

